83835
S/138/60/000/004/001/008
A051/A029

15.9200 2209 2109

AUTHORS: Peyzner, A.B., Fermor, N.A., Korotkova, A.A., Skvirskaya, Ye. P.

TITLE: The Production of Special Synthetic Latexes for the Manufacturing of Foam Rubber Products

PERIODICAL: Kauchuk i Rezina, 1960, No. 4, pp. 1 - 9

TEXT: In order to organize mass production of Soviet foam rubber articles, it was important to establish a raw material base, i.e., to introduce the production of synthetic latex suitable for the manufacturing of foam rubber. The article deals with the results of the work concerning the synthesis of the special latex. The possibility of using butadiene-styrene and chloroprene latexes was investigated which are produced in industry with a high content of dry residue (about 50%). The minimum permissible concentration is just about 50% when used for the purpose in question (Refs. 1 - 4) The following latexes were tested: СКС-30У (SKS-30U), the Nairites Л-1, Л-2, Л-3, Л-4, Л-5, Л-6 (L-1), (L-2), (L-3), (L-4), (L-5), (L-6). The foam rubber articles were produced by the mechanical foaming method. As a result of

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the tests the following latexes were developed: 1) Chloroprene-butadiene and chloroprene-isoprene types, 2) SKS-30A (with 4.5 and 7.5% Nekal), 3) SKS-30 with Nekal, paraffinate of sodium, sodium soap, modified colophony and a mixture of fatty acid and colophony soaps as emulsifiers, 4) SKS-50, obtained with Nekal, 5) SKS-50, with ammonia paraffinate. It appeared that the possibility of obtaining satisfactory foam rubber from synthetic latex depended on the nature of the polymer, as well as the nature of the emulsifier The most positive results were obtained in the case of the SKS-50 type latex, using ammonia salts of synthetic fatty acids. Therefore, the work was concentrated on the latter. It was found that the foaming in the latex, as well as its durability, improves with an increase in the pH of the latex to 10 and by lowering the foaming temperature. The authors also discuss the effect of the plasticity on the SKS-50 latex properties. There were 56 latex samples tested and it was found that a normal foam rubber was always obtained at a hardness of the polymer not over 1,700g. In order to produce satisfactory foam rubber from SKS-50 latex, it is imperative that the latter contains a

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The Production of Special Synthetic Latexes for the Manufacturing of Foam Rubber Products

polymer with a relatively high plasticity. Some of the reasons for the influence of the plasticity on the quality of the foam rubber are discussed in Ref. 9 by Peyzner and co-workers. Regarding the kinetics of polymerization during synthesis, experiments showed that one reason for the ineffective expenditure of the initiator was the presence of iron compounds in the initial emulsion. A small amount of Trilon B was introduced into the initial emulsion in order to eliminate the harmful effect of the iron compounds. The content of the dry material had to be elevated, as being one of the conditions for using the latex in the production of foam rubber. The soap content was reduced in the initial emulsion in order to increase the size of the particles in the latex, which would secure the necessary concentration of dry material. The temperature of the polymerization was lowered and the conversion of monomers was increased to over 60%. The stability of the СКС-50 ПГ (SKS-50 PG) latex was shown to be inadequate. An additional amount of ammonium paraffinate (up to 1.5% of the polymer weight) was added after completion of the polymerization to increase the stability of the polymer. In order to produce a test batch of SKS-50 latex, of increased size a tempera-

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ture of 50°C, and a monomer conversion of 75% were proposed. A latex mixture of the composition given on page 6 was tested in the laboratory and the entire latex was shipped to the Balanda and Kursk Plants. Other latexes were tested as raw material in the production of foam rubber, such as butadiene--methyl styrene latex and butadiene-nitrile latex. The stability of СКН-40П (SKN-40P) latex is described and it is stated that this latex was sent to the Foam Rubber Article Plant in Balanda for use in production. The development of the SKN-10 latex synthesis is still under way. There are 8 tables, 4 figures, 17 references: 6 Soviet and 11 English.

ASSOCIATION: Vsesoyuznyy Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva (All-Union Scientific Research Institute of Sythetic Rubber imeni S.V. Lebedev)

Card 4/4

LEBEDE , A.V., red.; PEYZNER, A.B., red.; FERMOR, N.A., red.; SHUR, Ye.I., red.; FOMKINA, T.A., tekhn. red.

[Synthesis of latexes and their uses] Sintez lateksov i ikh primenenie. Pod red. A.V.Lebedeva, A.B.Peiznera, N.A.Fermora. Leningrad, Gos. nauchno-tekhn.izd-vo khim. lit-ry, 1961. 367 p. (MIRA 15:2)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. akad. S.V. Lebedeva, Leningrad (for Lebedev, Fermor).
(Rubber, Synthetic)

S/727/61/000/000/002/009
I031/I242

AUTHORS: Peyzner, A.B., Lebedev, A.V., Fermor, N.A., Skvirskaya, Yo.P., Korotkova, A.A., Berlin, R.L., Taranenko, S.V.

TITLE: Synthesis of latex for foam rubber manufacture

SOURCE: Sintez latekaov i ikh primeneniye. Ed. by A.V. Lebedev, A.B. Peyzner, and N.A. Fermor, Leningrad, Goskhimizdat, 1961, 21-40

TEXT: The purpose of this work was the development of the manufacture of foam rubber from synthetic latexes produced in the USSR. The initial experiments were performed with СКС-30У (SKS-30U) and chloroprene latexes subsequently, new experimental latexes were synthesized: chloroprene-butadrene and chloroprene-isoprene; butadrene-styrene latexes СКС-30А (SKS-30A), СКС-30 (SKS-30), СКС-50 (SKS-50) with Nekal and СКС-50 (SKS-50) with ammonium paraffinate. German Buna S-3 and Buna-SS-Special (butadrene-styrene 50:50) were also investigated. The results were unsatisfactory with the excep-

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S/727/61/000/000/002/009
I031/I242

Synthesis of latex for...

tion of SKS-50 latex of modified mix, and the detailed study was narrowed to this material only. Factors like full saturation of particles film, increased pH of the solution, increased concentration of solids, and low foaming temperature, improve the foaming ability of a latex. Foam stability in the SKS-50 latex was achieved by an increase in soap content up to 10% of weight of solids. Optimum plasticity depends on the nature of polymer, on condition of polymerization, on mix composition and on technology of the process. A relation exists between the rate of polymerization and the solids content of the latex. The smaller the size of particles, the higher the rate of polymerization. On the other hand, the small-particle latex, due to its higher viscosity thickness at a lower solids content. The SKS-50 latex was stabilized with potassium paraffinate which reduced the surface tension to 45-48 dynes/cm. The possibility of substituting α-methylstyrene for styrene in a butadiene-styrene polymer was studied. The polimerization

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Synthesis of latex for...

rate was slowed down by 20-25%. The foam rubber obtained complies with specifications, except for its odor. A butadiene-nitrite latex with paraffine soap proved to be resistant to the action of benzene and gave an odorless foam rubber of good quality. There are 7 figures and 10 tables.

ASSOCIATION: VNIISK, NIIR, RTI Leningrad plant

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S/727/61/000/000/004/009
I031/I242

AUTHORS: Fermor, N.A., Lebedev, A.V., Peyzner, A.B., Mints, S.M.

TITLE: Aging of chloroprene latex Nairit П-4 (L-4)

SOURCE: Sintez latoksov i ikh primeneniye. Ed. by A.V. Lebedev, A.B. Peyzner, and N.A. Fermor. Leningrad, Goskhimizdat, 1961, 144-162

TEXT: Two methods have been employed for the investigation: determination of % rejects at various stages of film-envelope production by the ion-precipitation method and determination of elongation of a gel obtained by ion-precipitation. Both, the natural life aging test and accelerated test were carried out. It was found that gel properties which have a bearing on the behaviour of a П-4 (L-4) latex during ion-precipitation-production of film, depend on the extent of polymerization, the size of polymer particles, the pH of the latex, and the amount of emulsifying agent. The technical properties of a latex deteriorated on aging. The aging causes the

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S/727/61/000/000/004/009
I031/I242

Aging of chloroprene latex...

detachment of chlorine from the polymer, hence a decrease in pH, branching of the polymer chain, further polymerization of chloroprene, gradual conglomeration of the globules, an increase in viscosity, a decrease in surface tension of the latex and a reduction in the content of the anti-aging agent. An increase in temperature hastens the aging process, the maximum effect being obtained between 20 and 70°C. Stability of latex and its aging behaviour depend on the concentration of initial latex, the extent of polymerization, presence of free chloroprene, peroxides, and ammonium, the temperature of polymerization, and the nature of the "anti-knocking" regulator. An experimental polymerization in dilute solution at a low pH and temperature, without emulgator, and with a smaller amount of peroxide catalyst, yielded the modified L-4 latex with better properties and high stability. There are 24 tables. The most important English-language reference is D.E. Anderson, P. Covacic, Ind.Eng.Chem. 47, 171 (1955).

ASSOCIATION: VNIISK

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PEYZNER, A.B.; LEBEDEV, A.V.; FERMOR, N.A.; ROZENGARDT, Ye.V.; ZHEBROVSKIY, V.V.; LIVSHITS, Kh.M.; DRINBERG, A.Ya. [deceased]; KOBETSKAYA, V.M.; USITINOVA, O.N.

Synthesis of styrene-butadiene latexes and the production of paints derived from them. Lakokras.mat. i ikh prim. no.2:7-12 '61. (MIRA 14:4)

(Paint) (Butadiene)

S/080/61/034/002/007/025
A057/A129

AUTHORS: Lebedeva, N.N., Yerkova, L.N., Smirnov, N.I., Fermor, N.A.

TITLE: Investigation into concentration of synthetic latex by the method of evaporation in an air flow

PERIODICAL: Zhurnal Prikladnoy Khimii, v 34, no 2, 1961, 319-323

TEXT: In one of the Soviet plants for synthetic rubber the concentration of latex is carried out in an air flow in a rotating horizontal drum, which is heated with hot water. Since this apparatus will be used in several new plants, in the present work the effect of various factors on the evaporation process was studied in such an apparatus (Fig 1). The drum-shaped concentrator (1) is 402 mm long and 140 mm in diameter. It is made of glass and has two openings, the inlet (2) and outlet (3) for the air. The concentrator is inserted in a water tank (4) and by electrical heating (5) the temperature is kept constant. The latter was controlled

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Investigation into concentration ...

by thermoelements (6) and (7) with a milliammeter (8). Rotation is ensured by a motor with a reduction gear (9). Air is supplied by a vacuum cleaner (10) (type "Uralets") through a gas meter (11). Two series of experiments were carried out, i.e., periodical (as in the plant) and continuous concentrations. In continuous concentrations the latex was supplied from the funnel (12) through the tube (13) in portions into the concentrator and the concentrated latex passed through the outlet (3) into the container (14). The process was controlled by determining the dry substance in samples taken every 0.5 hr from (14). Investigations of different types of latex СКС-30ГП (SKS-30GP), СКС-50ГП (SKS-50GP), СКС-65ГП (SKS-65GP), and СКС-50ПГ (SKS-50PG) showed little or no effect of the composition of the latex on the concentration process. In the present investigations concentration of SKS-50PG latex was studied at a concentrator rotation rate of 30 rpm, dry residue contents from 19 to 55% and temperature of 40°C (some at 50°C). According to equations for the evaporation of liquids from a surface (Ref 3: V.V. Kafarov, ZhPKh, 30, 10, 1456 (1957) criteria Nu' and Re were determined from $Nu' = kd_{equiv.}/D$; $Re = wd_{equiv.}\gamma/\mu g$

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($d_{equiv.}$ = equivalent diameter of the cross-section of the concentrator not covered by the latex (in m), D = diffusion coefficient of steam in air (m^2/sec), w = linear velocity of air in the concentrator (m/sec), γ and μ = density (kg/cm^3) and viscosity ($kg \cdot sec/m^2$) of the initial air, k = mass transfer coefficient). The value for k was determined for the batch process from $k = G/F\Delta c\tau$, and for the continuous process from $k = G_{sec}/F\Delta c$ (G = amount of evaporated water (kg) in the periodical run in the τ time (sec), G_{sec} = amount of evaporated water (kg/sec) in the continuous run, F = surface of evaporation (m^2), Δc = mean moving force (kg water per m^3 dry air)). The function $Nu' = f(Re)$ plotted in logarithmic coordinates indicates that experimental data are on a straight line expressed by $Nu' = 0.830\ Re^{0,5}$. This equation can thus be used for practical calculations of concentration apparatus in intervals where the criterion Re changes from 400 to 1,700, and Nu' from 16 to 36. Results obtained in the present work were presented in Table 1 and 2. There are 2 figures, 2 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The latter reads as follows: T.K. Sherwood, R.L. Pigford, Absorption and Extraction (1952).

SUBMITTED: July 9, 1960

Card 3/7

CHERKINSKIY, Yu.S.; FERMOR, N.A.; SELIVANOVSKIY, S.A.

SKS-65 GP latex is an effective admixture to concrete. Bet. i zhel.-bet. 8 no.7:314-317 Jl '62. (MIRA 15:7)
(Latex)
(Concrete—Testing)

LEBEDEVA, N.N.; YERKOVA, L.M.; SMIRNOV, N.I.; FERMOR, N.A.

Study of the effect of some factors on the process of concentrating synthetic latexes. Zhur.prikl.khim. 35 no.1:201-204 Ja '62. (MIRA 15:1)

(Rubber, Synthetic)

L 14271-63 EWP(j)/EWT(m)/BDS AFFTC/ASD Pc-4 RM

ACCESSION NR: AP3001593 S/0138/63/000/005/0017/0020

AUTHORS: Khazanovich, I. G.; Fermor, N. A.; Peymer, A. B.

TITLE: Latexes containing functional groups in the polymer; their adhesive properties

SOURCE: Kauchuk i rezina, no. 5, 1963, 17-20

TOPIC TAGS: latex, functional group, adhesiveness, polar group

ABSTRACT: The aim of the present investigation consisted in finding a way to strengthen the adhesion of rubber to the cord in automobile tires. The authors endeavored to synthesize a cord-coating copolymer containing the reactive hydroxyl and phenol groups. The constituents chosen were butadiene and styrene polymers, to which were added the monomers of an alkylcarbinol or of an alkylphenol, the polymerization being conducted in quantities up to 40 liters in the presence of synthetic fatty acid soaps and of an initiator, at 20 or 50C. Coating compounds for viscose and polyamide cord were compounded from the obtained copolymers by the incorporation of 9.5% of a resorcinol-formaldehyde resin. The strength of adhesion of the coated cord to natural and synthetic carcass rubbers was determined, the highest adhesion being exhibited by coatings containing 5% alkycarbinol or 5-7%

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L 14271-63
ACCESSION NR: AP3001593

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alkylphenol, both being above the adhesion values obtained with standard cord coatings. Since phenols form condensation products with aldehydes (with the formation of thermostable C-C bonds), up to 2% hexamethylenetetramine were incorporated into the experimental copolymers during vulcanization with carbon black, and a nearly ten times superior tear test was obtained. Orig. art. has: 2 formulas, 3 charts, and 3 tables.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber)

SUBMITTED: 00 DATE ACQ: 08Jul63 ENCL: 00

SUB CODE: MA NO REF SOV: 009 OTHER: 000

Card 2/2

ACCESSION NR: AP4010251 S/0138/63/000/012/0005/0010

AUTHORS: Miylen, D. A.; Selivanovskiy, S. A.; Fermor, N. A.; Khazanovich, I. G.; Yakovlev, Yu. M.

TITLE: Continuous polymerization of monomers in the synthesis of latexes

SOURCE: Kauchuk i rezina, no. 12, 1963, 5-10

TOPIC TAGS: polymerization, monomer polymerization, polymerization product dispersion, latex, batch process, continuous process, emulsion polymerization, reactor, productivity, particle size, surface tension, surface film saturation

ABSTRACT: The accumulated experience of VNIISK in the production of synthetic latexes by continuous process is compared with the batch process. Latexes SKS-65GP, SKS-50PG, SKN-10P and SK-30ShKhP were synthesized by both procedures for 15 weeks. The particle size was determined by soap titration and by means of Tesla's electron microscope model BS-242, using as standard styrene latex with a particle size of 250 millimicrons. To counteract the flattening out of the particles and to increase the outline sharpness, the emulsions were stabilized with Leukanol and subjected to bromination. The surface tension in the latex-air interface and the degree of saturation of the globular membrane with the emulsifier were also deter-

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mined. The average volume-surface diameter of the latex particles obtained by continuous polymerization was in all instances larger than those synthesized in batches. The surface tension in latexes produced continuously was smaller, the polydispersity of particles much higher, and the degree of saturation of the particle membranes with the emulsifier greater than in latexes produced in batches. It is expected that the enumerated colloidal changes in the latexes produced by the continuous process would affect their technical and technological properties. The productivity coefficient η for the apparatus used with a series of polymerizers can be computed from the A. N. Planovskiy formula

$$\eta = \frac{\int_{x_0}^{x_k} \frac{dx}{f(x)}}{\frac{x_1 - x_0}{f(x_1)} + \frac{x_2 - x_1}{f(x_2)} + \cdots + \frac{x_k - x_{k-1}}{f(x_k)}}$$

where x is the amount of material used, f(x) is the velocity of reaction. Orig. art. has: 2 charts, 4 tables, and 1 equation.

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ACCESSION NR: AP4010251

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber)

SUBMITTED: 00	DATE ACQ: 03Feb64	ENCL: 00
SUB CODE: CH	NO REF SOV: 007	OTHER: 005

Card 3/3

LEBEDEV, A.V.; MINTS, S.M.; FERMOR, N.A.

Agregate stability of synthetic latexes to the attack of various actions. Kauch. i rez. 22 no.11:14-19 N '63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V.Lebedeva.

ACCESSION NR: AP4041457 S/0138/64/000/006/0009/0013

AUTHOR: Khazanovich, I. G., Fermor, N. A., Peyzner, A. B., Lebedev, A. V., Yezriyelev, A. I.

TITLE: Latexes containing nitrile groups in the copolymer and their adhesive properties

SOURCE: Kauchuk i rezina, no. 6, 1964, 9-13

TOPIC TAGS: latex, synthetic rubber, tire cord, butadiene-nitrile, latex SKN-5, adhesive property, latex polymerization, acrylonitrile latex, latex structure

ABSTRACT: Since the Na-dibutylnaphthalenesulfonate which is commonly used as an emulsifying agent in butadiene-nitrile rubber has an adverse effect on the adhesive properties of latexes, and since the poor adhesive properties of the latexes SKN-40, SKN-26 and SKN-18 may be due to the extremely high content of polar groups, the authors investigated the adhesive properties (in the impregnation of tire cord) of butadiene-nitrile latexes prepared at 5, 30 or 50C with a butadiene: acrylic acid nitrile ratio varying from 60:40 to 97:3 and using the K scaps of synthetic fatty acids which are also used as emulsifying agents in the preparation of latex SKS-30 ShKhP. Studies showed that the polymerization rate

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increases with the nitrile content. The best adhesive properties were obtained with 5-7 parts nitrile, especially at 5C; the latex SKN-5 prepared at 5C was therefore investigated further. Since lack of homogeneity in the latex may have a favorable effect on the adhesive properties, the following formula was developed for calculating the integral and differential composition of the copolymer and the degree of conversion of the monomers in relation to the overall degree of polymerization during the preparation of latex SKN-5:

$$\ln\frac{m_2}{(M_2)_0}=\frac{1}{0{,}48}\ln\frac{1-0{,}48y_0}{1-0{,}48y}\quad\text{and}\quad\frac{M_2}{(M_2)_0}=\left(\frac{0{,}48y_0-1}{0{,}48y-1}\right)^{2{,}08} \tag{1}$$

where $(M_2)_0$ is the number of mols of nitrile before polymerization, y_0 is the ratio of the molecular concentrations of butadiene and nitrile before polymerization, and M_2 and y represent the corresponding values at any other given degree of polymerization. Experiments showed that this structural heterogeneity can best be achieved by adding the nitrile in batches during polymerization, so that addition of the nitrile in 5 aliquots, for example, leads to better adhesive properties even though the content of bound nitrile in the copolymer is decreased. Orig. art. has: 4 formulas, 3 figures and 3 tables.

ACCESSION NR: AP4041457

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute for Synthetic Rubber)

SUBMITTED: 00 ENCL: 00

SUB CODE: OC, MT NO REF SOV: 002 OTHER: 002

Card 3/3

GUDKOV, A.N.; FERMOR, N.A.; SMIRNOV, N.I.

Vapor pressure of monomer-polymer systems. Zhur. prikl. khim. 37 no.10:2204-2210 O '64. (MIRA 17:11)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

MIYLEN, D.A.; SELIVANOVSKIY, S.A.; FERMOR, N.A.; KHAZANOVICH, I.G.; YAKOVLEV, Yu.M.

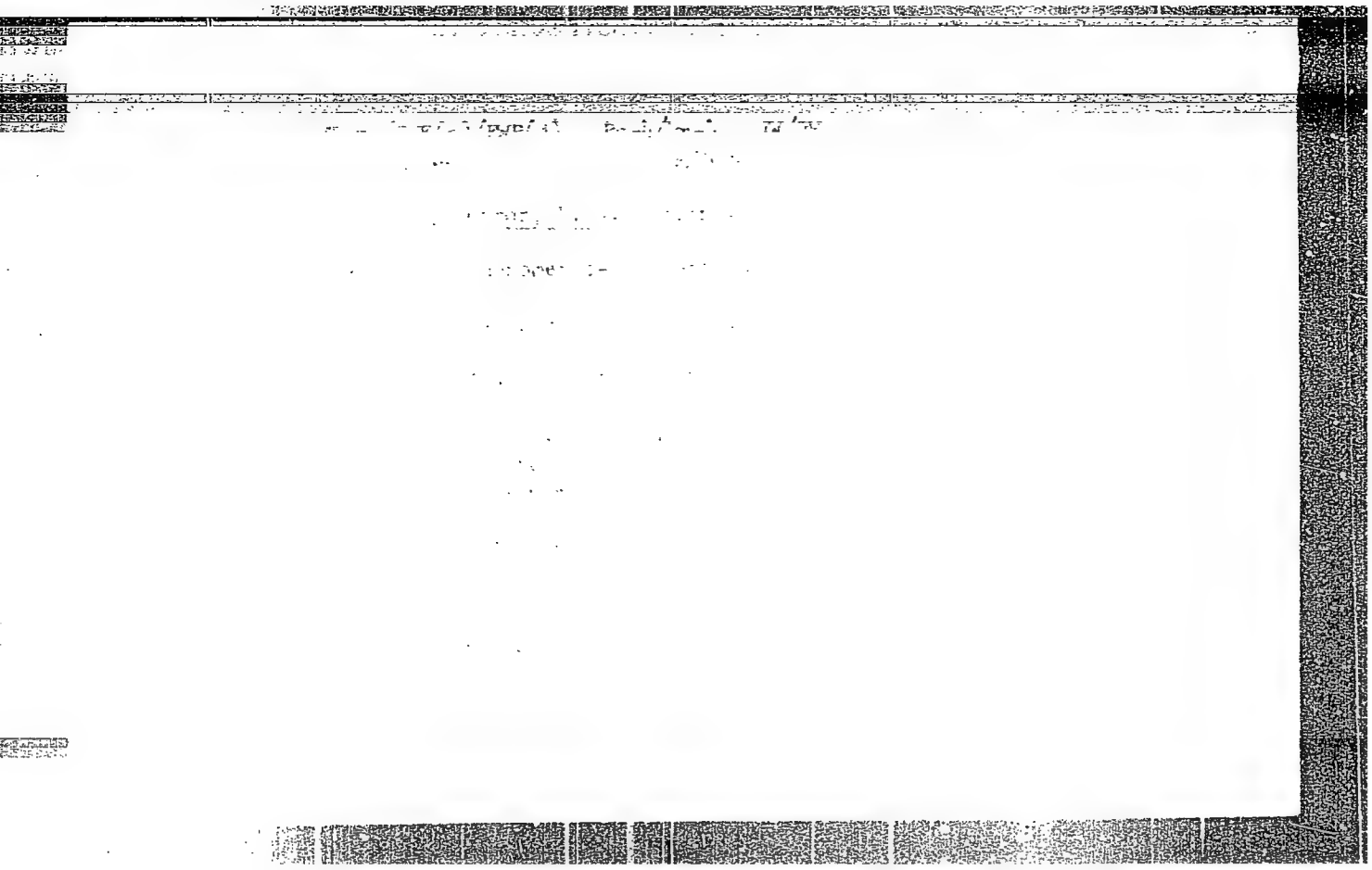
Continuous polymerization of monomers in latex synthesis. Kauch. i rez. 22 no.12:5-10 D '63. (MIRA 17:9)

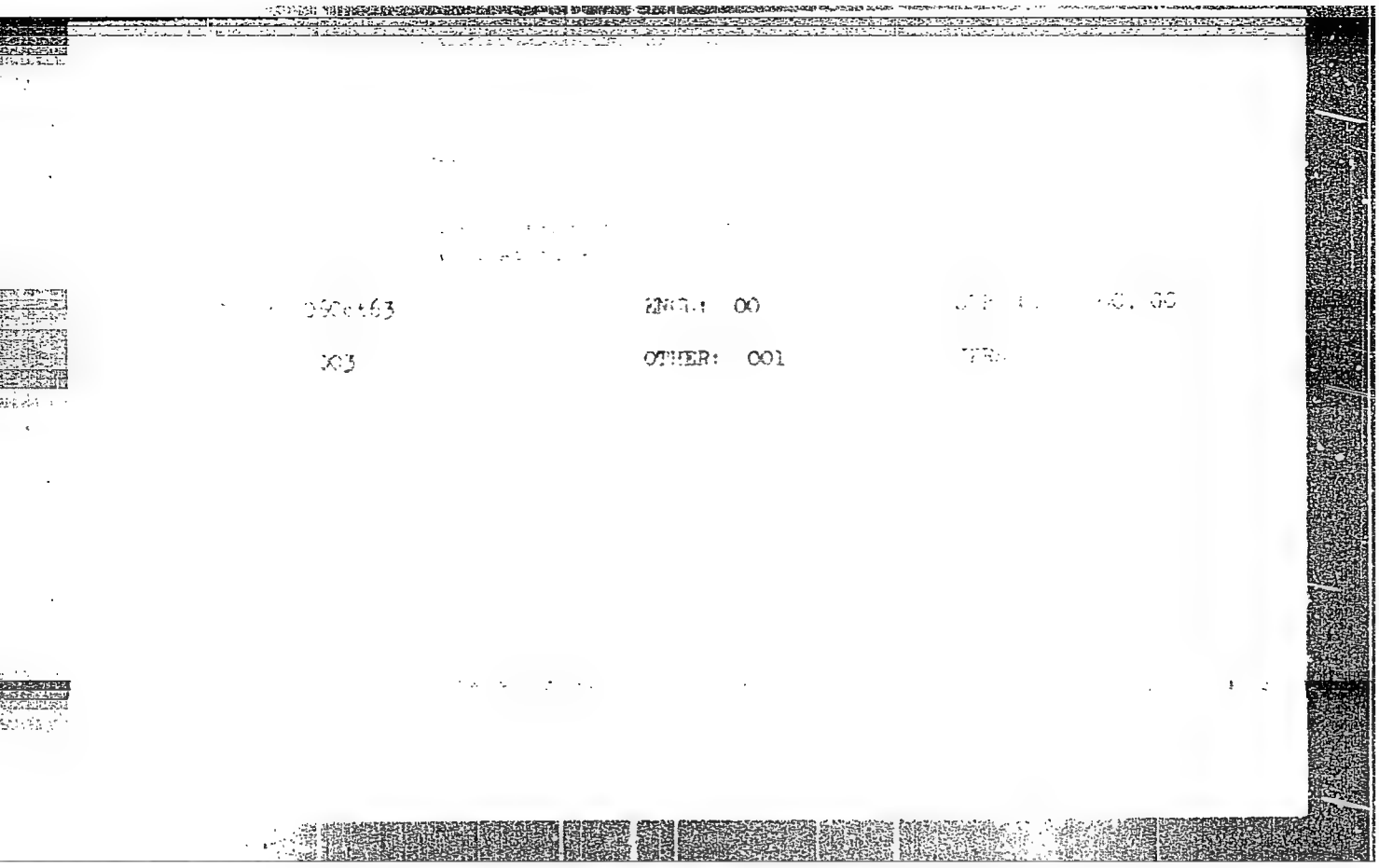
1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni Lebedeva.

KHAZANOVICH, I.G.; FERMOR, N.A.; PEYZNER, A.B.; LEBEDEV, A.V.; YEZRIYELEV, A.I.

Synthetic latexes containing nitrile groups in the copolymer, and their adhesive properties. Kauch. i rez. 23 no.6:9-13 Je '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S.V. Lebedeva.





GUDKOV, A.N.; FERMOR, N.A.; SMIRNOV, N.I.

Vapor pressure of monomers over synthetic latexes. Zhur. prikl. khim. 37 no.11:2478-2482 N '64 (MIRA 18:1)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

GUDKOV, A.N.; FERMOR, N.A.; SMIRNOV, N.I.

Phase equilibrium in certain aqueous monomer-polymer systems.
Zhur. prikl. khim. 37 no.12:2640-2643 D '64.
(MIRA 18:3)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

FERMUS, ROMUALD

HANSKI, Wotold; FERMUS, Romuald

Incidence of toxoplasmosis in the town and district of Radom on the basis of autopsy material. I. Przegl. epidem., Warsz. 11 no.2:131-137 1957.

1. Z Pracowni Anatomopatologicznej Kierownik: dr med. W. Hanski i z Oddzialu Noworodkow Miejskiego Szpitala w Radomiu Ordynator: lek. med. R. Fermus.

(TOXOPIASMOSIS, epidemiol.
in Poland (Pol))

HANSKI, Witold; FERMUS, Romuald

Congenital teratoma of the thyroid. Pediat. polska 35 no.3:334-337 Mr '60.

1. Z Oddzialu Noworodkow i z Pracowni Anatomopatologicznej Szpitala Miejskiego w Radomiu, Ordynator Oddzialu: lek. R. Fermus, Kierownik Pracowni: dr med. W. Hanski.
(THYROID GLAND neopl.)
(TERATOID TUMOR in inf. & child)

FERMY, Sandor

Contractual sugar beet growing in the Soviet Union. Cukor 16 no.4: 91-96 Ap '63.

1. Cukoripari Kutatointezet.

FERNANDES

USSR/Microbiology - Medical and Veterinary Microbiology F-6

Abs Jour : Ref Zhur-Biologiya, No 1, 1957, 774

Author : Fernandes and Kabanil'yas
Inst :
Title : Sensibilization to Tuberculin Induced by Lepromin

Orig Pub : Leprosy rev., 1955, 26, No 4, 163-167

Abstract : Observations of 18 children in the ages of 8 months to 8 years who lived at home and had no contact with leprous patients were conducted. They exhibited a negative Mantu reaction 1:10. These children were administered intracutaneously 0.1 to 0.2 ml of bacillar lepromin prepared by the Dkharmender method or whole

Card 1/2

USSR/Microbiology - Medical and Veterinary Microbiology F-6

Abs Jour : Ref Zhur-Biologiya, No 1, 1957, 774

Abstract : lepromin prepared by the Mitsuda-Khayashi method. In 8 of the children the Mantu negative reaction became positive six or seven weeks after the administration of lepronin. Externally, the appearance and the course of the reaction to tuberculin resembled a reaction which follows vaccination with BCG. In most of the patients the tuberculin allergy was weak and of brief duration.

Card 2/2

PELOVA,N.; FERNANDES,A.; MEIIA,F.; KARRERA,A.

Leiomyosarcoma of the ileum. Khirurgiia (Sofiia) 16 no.12: 1124-1126 '63.

1. Iz patologoanatomichnoto otdelenie na provintsialnata bolnitsa "Manuel Askunse" Kamaguei, Kuba).

*

FERNANDES, Kh.Prado, inzh.

Improved binding of the stator windings of a hydrogenerator.
Elek.sta. 33 no.12:76-78 D '62. (MIRA 16:2)
(Turbogenerators--Windings)

FERNANDES, Kh.Prado, inz.; EL'KIND, Yu.M., kand.tekhn.nauk

Strength of compounded insulation subject to periodic shock loads. Vest. elektroprom. 34 no.5:56-60 My '63. (MIRA 16:5)
(Turbogenerators--Windings)

FERNANDES, Kh. Prado, inzh.; EL'KIND, Yu.M., kand. tekhn. nauk

Effect of the residual voltage of a generator on the vibration of the stator during the self-synchronization process. Elek. stat. 35 no.1:86-88 Ja '64. (MIRA 17:6)

DENISOV, Ye.M.; FERNANDETS, V.R.; BESPAL'KO, A.N., master

Experience in erecting a 180 meter reinforced concrete smokestack in the fifth line of the Pridneprovsk State Regional Electric Power Plant. Energ. stroi. no.37:61-64 '63. (MIRA 17:6)

1. Glavnyy inzh. Moskovskogo upravleniya tresta "Spetszhelezobetonstroy" (for Denisov).

CZECHOSLOVAKIA/CUBA

FERNANDEZ, M., HOLECKOVA, E; Institute of Hygiene, Ministry of Public Health, Havana [Original version not given]; Physiological Institute, Czechoslovak Academy of Sciences (Fysiologicky Ustav CSAV) Prague.

"Adaptation of Animal Cells to Higher Temperatures."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 107

Abstract: A strain from mice fibroblasts L was exposed to 42° C and cultivated at 36° C. Resistance of these cells to 42° C temperature was compared to that of normal cells and of cells adapted to cold. The cells adapted to heat had best resistance to high temperature; those adapted to the cold, worst. The same strains of mammal cells may be adapted either to cold or to heat, but cells adapted to cold do not tolerate heat. 1 Figure, 2 Western, 1 Czech reference. Submitted at "16 Days of Physiology" at Kosice, 30 Sep 65.

1/1

FERNBACH, Janos (Jr)

Quails laid eggs too late. Aquila 69/70:268-269 '62-'63 [publ. '64].

Northern ring ouzel at Zobnatica. Ibid.:273

Lapland bunting in the Vojvodina. Ibid.:276

FERNBACH, Jozsef, dr.; FESZLER, Gyorgy, Dr.; JUHASZ, Laszlo, Dr.; SZTUDINKA, Gyula

Experiences with antihemophilic plasma. Orv. hetil. 98 no.49:1347-1349 8 Dec 57.

1. Az Orszagos Vetranszfuzios Szolgalat Kozponti Kutatu Intezetenek (igazgato: Sores, Balint dr.) kozlemenye.

(PLASMA
antihemophilic plasma, prep. by deep freezing & ther. use)
(HEMOPHILIA, ther.
antihemophilic plasma, prep. by deep freezing & clin. results)

FERNBACH, J.

Osteoporois and its therapy. p. 195

A MAGYAR TODOMANYOS AKADEMIA V. OKZTALAY BOIOGIAI CSOPORTJANAK KOS IEMENEI. Budapest, Hungary. Vol. 3, no. 2, 1959

Monthly list of East European Accessions (EEAI). IC. Vol.9, no. 1, Jan., 1960.

Uncl.

LENGYEL, Bertalan; PAPAI, Denes; FERNBACH, Jozsef

Use of the gonorrhea cultivation method in the Szolnok County Clinic. Borgyogy. vener. szemle 13 no.2:91-94 Apr 59.

1. A Szolnok Megyei Bor-Nemibeteggondozo Intezet (Vezeto foorvos: Lengyel Bertalan dr.) es a Szolnok Megyei Kozegeszsegugyi es Jarvanyugyi Allomas (Igazgato foorvos: Harczos Gyorgy dr.) kozlemenye.
(GONORRHEA, diag.
culturing of Neisseria gonorrhoeae in county dermatol. & venerol. clinic in Hungary (Hun))

HUNGARY

FERNBACH, Jozsef, Dr, MASSANYI, Lajos, Dr, PINTER, Jozsef, Dr; Medical University of Budapest, Orthopedic Clinic (Budapesti Orvostudomanyi Egyetem, Orthopaediai Klinika).

"The Significance of Paper Electrophoretic Examination of Serum Proteins in the Diagnosis of Bone Tumors."

Budapest, Orvosi Hetilap, Vol 104, No 35, 1 Sept 63, pages 1646-1649.

Abstract: After a discussion of the experiments of several authors, clinical studies are reported on the subject. Only those selected 77 cases are included in the report where histological examination accompanied the paper electrophoresis (P.E.) findings. The P.E. values are often more indicative of bone tumors than routine laboratory tests. The P.E. values found in cases with various types of tumors are reported. 20 Western, 2 Hungarian references.

1/1

GLAUBER, Andor, dr.; FERNBACH, Jozsef, dr.; SILLAR, Pal, dr.

Our experiences with the anabolic hormone therapy in rickets patients. Gyermekgyogyaszat 15 no.1:1-9 J '64.

1. A Budapesti Orvostudomanyi Egyetem Orthopaediai Klinikajanak (Igazgato: Glauber Andor dr. egyet. tanar) közlemenye.

FERNBACH, Jozsef, Dr, BARSONY, Istvan, Dr, BOLNER, Geza, Dr; Medical University of Budapest, Orthopaedic Clinic (director: GLAUBER, Andor, Dr, professor) (Budapesti Orvostudomanyi Egyetem, Orthopaediai Klinika).

"The Diagnosis and Treatment of the Sudeck Syndrome."

Budapest, Magyar Traumatologia, Orthopaedia es Helyreallito Sebeszet, Vol IX, No 2, 1966, pages 89-97.

Abstract: [Authors' English summary modified] The pathomechanism of the development of the Sudeck syndrome is discussed. The importance of prophylaxis is emphasized. In order to obtain early diagnosis and to control the treatment objectively, the importance of oscillometry and of the recording of skin temperature is emphasized in addition to repeated radiograms. As both tests are simple and easy to perform, their introduction in outpatient services is recommended. In differential diagnosis, the presence of a malignancy or tuberculotic bone changes should always be considered and excluded. A complex and thorough orthopaedic, medical and neurological therapy is recommended. 5 Eastern European, 32 Western references.

1/1

FERNEA, V.

A new plywood factory. p 424.

INDUSTRIA LEMNULUI. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Rominia si Ministerul Industriei Lemnului) Bucuresti, Rumania.
Vol. 7, no. 11, 1958.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 6, June 1959.
Uncl.

FERNEA, V.

The Galautas particle board factory will start operations very soon. p. 403.

INDUSTRIA LEMNULUI. (Oasociatia Stiinifica a Inginerilor se Tehnicienilor din Rominia si Mintsterul Industriei Lemnlui) Bucuresti, Rumania. Vol. 8, No. 11, Nov. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.

Uncl.

FERNEA, V., ing.; STAN, C., ing.

A modern factory for trebly laminated particle board. Ind lemnului 14 no.2:42-46 F '63.

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P/034/62/000/004/002/002
D265/D302

AUTHOR: Ferner, V., Engineer

TITLE: Developmental trends in pneumatic automation

PERIODICAL: Pomiary, automatyka, kontrola, no. 4, 1962, 185-188

TEXT: The author points out the close resemblance between pneumatic and electronic automation and predicts developments in pneumatics based on the achievements already attained and their applications in automation. Wide possibilities lie ahead in the field of high frequencies and very low pressures where air becomes almost incompressible. This is dictated by the slower velocities of pneumatic as compared with electric signals, and by the high capacities owing to the compressibility of air at high pressures The range of acoustic frequencies of up to 2×10^7 c/s used for transmission of information overlap already that of electric short wave frequencies. The simplicity and ingenuity of a variety of high frequency sound generators transmitters and modulators are sufficient to realize the

Card 1/2

Developmental trends in ... P/034/62/000/004/002/002
D265/D302

possibilities of low pressure pneumatics in the modern automation techniques. The need is stressed to abandon the existing system of fixed working pressure (0.2 - 1 atm) conventionally adopted for transmitting and transforming pneumatic signals. The author predicts 3 ranges of pressures in which the research will explore the possibilities in pneumatic automation: 0-1 kg/cm^2 - serving mainly for energy sources, 0-100 mm H_2O for sending or transforming continuous signals and 0-1 mm H_2O for frequency modulated signals. Further development in pneumatic science alongside the existing achievements in electronics following similar pattern and bearing comparable importance in the field of automation are expected. There are 4 figures.

ASSOCIATION: VEB Geräte und Reglerwerke Teltow (Control Equipment State Plant - Teltow)

Card 2/2

FERNER, V., inz.

Development trends of pneumatic automation. Pomiary 8 no.4:185-188 Ap '62

1. VEB Gerate - und Reglerwerke, Teltow

FERNEZELYI, Ferenc

Modernization questions of railroad car repair. Vasut 14 no.8: 22-26 Ag '64.

FERRARI, Ye.A.

Explosionproof properties of metals. Bezop.truda v prom. 9 no.4:46-48 Ap '65. (MIRA 18:5)

CZECHOSLOVAKIA

CAPEK, R.; CORRADO, A.P.; FERREIRA, S.H.; ROCHA E SILVA, M.;
Institute of Pharmacology, Czechoslovak Academy of Sciences, Prague.

"The Effect of Bradykinin on the Electroencephalogram."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, pp 419 - 420

Abstract: Administration of Bradykinin in the carotid artery of rabbits causes a cortical desynchronization characterized by high frequency - low voltage activity. Identical reaction was observed in cats. High doses resulted in the initial period of desynchronization being followed by a lasting low frequency - high voltage activity. Increase in respiratory frequency and volume is caused in rabbits and in cats, and it lasts for about 20 minutes. Bradykinin is one of the most potent naturally occurring desynchronizing agents. 7 Western, 1 Czech reference. Submitted at the 8th Annual Psychopharmacological Meeting at Jesenik, 18 - 22 Jan 66. Article is in English.
1/1

FERRI, Rafo

Single and combined determination of resistance to standard tuberculostatic agents. Tuberkuloza 15 no.2:258-259 Ap-Je '63.

1. Opca bolnica, pluoni odjel, Split - Sef: prim. dr Rafo Ferri.
(MYCOBACTERIUM TUBERCULOSIS) (STREPTOMYCIN)
(ISONIAZID) (AMINOSALICYLIC ACID)
(DRUG RESISTANCE, MICROBIAL)

S

1. FEROVA, O. V.

2. USSR (600)

4. Sura Valley - Geology, Stratigraphic

7. Geological structure of the area between the Sura, Kadada, and Uza Rivers (report on the work of geological party No. 1 for 1944/45). (Abstract.) Izv. Glav. upr. geol. fon. no. 2, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Uncl.

FERRI, A.

FERRI, A.; SHTEYNBERG, R.I. [translator]; LEVANTOVSKIY, V.I., redaktor; AKHLAMOV, S.N., tekhnicheskiy redaktor.

[Aerodynamics of supersonic flow] Aerodinamika sverkhzvukovykh techenii. Perevod s angliiskogo R.I.Shteinberga. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 463 p. (MLRA 7:8)
(Aerodynamics, Supersonic)

FERRI,Rafo,Split

Effect of climate on the autonomic nervous system and tuberculosis.
Tuberkuloza,Beogr. 11 no.3:393-397 '59.
(TUBERCULOSIS physiol.)
(AUTONOMIC NERVOUS SYSTEM physiol.)
(CLIMATE)

FERRONI, V. K.

FERRONI, V. K.: "The thermal and mechanical transitory and stationary processes in the bearings of large hydrogenerators." Min Electrical Engineering Industry USSR. Leningrad Polytechnic Inst imeni. M.I. Kalinin. Leningrad, 1956. DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE.

SO: Knizhnaya Letopis', No. 18, 1956

FERRONI, V.K.

Investigation of bearings. Elektrosila no.14:52-64 '56.
(MIRA 12:12)
(Bearings (Machinery)) (Electric generators)

FERRONI, V.K., inzhener.

Industrial method of locating turn-to-turn faults in the rotor windings of turbogenerators. Vest.elektroprom. 27 no.5:56-59 My '56. (MLRA 9:12)

1. Zavod "Elektrosila" imeni S.M. Kirova.
(Electric generators)
(Electric measurements)

FEHRONI, V.K., inzhener.

Calculation of the thermal deformations of thrust bearing segments. Vest.elektroprom. 27 no.6:39-44 Je '56. (MLRA 10:8)

1.Zavod "Elektrosila" imeni S.M. Kirova.
(Deformations (Mechanics))
(Bearings (Machinery))

FERRONI, V.K., inzhener.

Effect of temperature conditions during installation on the quality of adjustment of hydraulic generator bearings. Elek.sta. 28 no.8:21-24 Ag '57. (MIRA 21-24)
(Hydraulic turbines)

FERRONI, V.K.

AUTHOR: Ferroni, V.K., Engineer. 110-10-5/18

TITLE: The Reliability of Thrust Bearings with Thick and with Thin Babbit Coatings on the Segments. (Nadezhnost' podpyatnikov) s tolstym i s tonkim babbitovym pokrytiyem segmentov)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.10, pp. 22 - 28 (USSR)

ABSTRACT: In thrust bearings, segments with a thin layer of babbit have considerable advantages over those with a thick layer, but objections to their use are often raised on the grounds that in the event of a fault such as lubrication failure there is much less risk of damage to the relatively extensive thrust block if a thick layer of babbit is used rather than a thin one. However, it is not clear why a layer of babbit 15 mm thick is considered necessary and article analyses the protective properties of the babbit layer under conditions of lubrication failure. When the segment works without oil it is heated very rapidly and the surface layer of babbit is melted. At the same time the lower layers of babbit are softened to a considerable depth and become unable to resist shearing forces. Therefore, the babbit surface can act as a lubricant only for a very short time before it is wiped off and the lower layers are destroyed. The time required to destroy the entire mass of babbit depends

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The Reliability of Thrust Bearings with Thick and with Thin Babbit Coatings on the Segments.

on its thickness, its specific heat and the power consumed in friction. When the layer of babbit is very thin the picture is different. Because of the relatively high melting point of the backing to the babbit layer the thin film of molten babbit is able to act as a metallic lubricant. The film is particularly stable if the backing is wetted by babbit as is the case when it is copper-plated. This picture of the behaviour of a thin babbit layer is in good agreement with the observed reduction in friction with increasing temperature of the anti-friction material.

An expression is derived for the time from lubrication failure until the babbit film is completely destroyed and the theoretical time is compared for the cases of a thick and a thin layer of babbit. (See Fig.1). In the absence of lubricant the specific power of friction may be anything up to 1 000 W/cm^2 at rated speed. It is of practical interest to consider processes in which this power does not exceed some tens of W/cm^2 since at higher values the bearing will in any case last only for a few seconds. It is assumed that damage to the main surfaces will occur when the whole babbit film is melted at a

 temperature of 370 °C and the coefficient of friction when

The Reliability of Thrust Bearings with Thick and with Thin Babbit Coatings on the Segments.

operating on a babbit film is equal to the coefficient of friction when the babbit is thick. Further, it is assumed that all the heat entering the segment during the time to destruction goes to raise the temperature of the segments. The corresponding equations are formulated and curves of the time to failure as functions of the specific power for a bearing with thin babbit are given in Fig. 2. Under the particular conditions given, the segment with a very thin layer of babbit could operate for about three minutes. Similar calculations are made for a bearing with a thick layer of babbit and the additional time that the bearing will last in this case is given in Fig. 3. When the power absorption is 80 W/cm^2 the additional time is more than 50% of the time for a thin babbit bearing to fail but still the absolute value of the time is very small compared with the time required to stop a set. As the power to be dissipated is reduced the additional time increases but its relative magnitude falls so that at 30 W/cm^2 the basic time is 120 seconds and the additional time 33 seconds. From this analysis it may be concluded that damage to bearings caused by thermal destruction of the babbit can take place over a very wide range of

 specific friction power depending on the specific pressure, the

The Reliability of Thrust Bearings with Thick and with Thin Babbit Coatings on the Segments.

coefficient of friction and the speed of the bearing. The duration of the emergency operating time depends on the power to be dissipated and the thickness of the babbit. When the babbit is 10 mm thick and with a friction power near the lower limit considered, the time to failure is determined mainly by the rate of removal of heat from the friction surface to the steel beyond the babbit. The increase that results from the time required to destroy the main mass of babbit is small and is not more than 20% of the total. The magnitude of the temperature rise of the surface of friction per unit specific friction power for various kinds of segment is shown in Fig, 4. With given starting conditions it will be seen that the temperature of a segment with thick babbit rises twice as much as that with a thin layer of babbit because of the low thermal conductivity of babbit compared with steel. The use of a thick layer of babbit also makes the temperature distribution over the segment less uniform and the additional strains in the segments that result from the use of thick babbit can be of considerable practical importance.

In a bearing with thin babbit the presence of a layer of

 copper, the thickness of which is several times greater than

The Reliability of Thrust Bearings with Thick and with Thin Babbit Coatings on the Segments.

the height of irregularities in the steel foundation, has a very beneficial influence in retarding complete failure. A thickness of 1.5 - 2 mm of babbit is more than enough to provide for elastic or plastic equalisation of local points of overload by the babbit.
There are 4 figures, and 4 references, of which 2 are Slavic.

ASSOCIATION: "Elektrosila" Works (Zavod "Elektrosila")

SUBMITTED: March 3, 1957

AVAILABLE: Library of Congress

Card 5/5

FERRONI, V.K.

Vibration measuring and balancing kit. Elektrosila no.19:59-62 '60. (MIRA 15:2)
(Vibration--Measurement) (Electronic measurements)

S/081/61/000/021/056/094
B110/B101

AUTHORS: Volzhenskiy, A. V., Ferronskaya, A. V.

TITLE: Honeycomb concretes on the basis of gypsum-cement-puzzolano binders

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 314, abstract 21K329 (Beton i zhelezobeton, no. 3, 1961, 123-126)

TEXT: The physical and mechanical properties of honeycomb concretes on the basis of gypsum-cement-puzzolano binders were studied. They contained 50-60% of gypsum-semihydrate, 20-30% of Portland cement and 10-30% of an active hydraulic additive. The latter was added to reduce the Ca concentration to 1 g/liter in aqueous solution during the hardening in the first days. Rapidly hardening, non-autoclaved, frost- and water resistant honeycomb concretes were obtained with a volume weight of 400-900 kg/m^3 and a strength of 15-45 kg/cm^2, with a cement consumption of ~100 kg/m^3. They were produced by mixing the initial components:

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S/081/61/000/021/056/094
B110/B101

Honeycomb concretes on the basis of ...

binder, sand and gas- or foam forming additives and by hardening the products in air at ordinary temperatures or by heat treatment at 75°C.
[Abstracter's note: Complete translation.]

Card 2/2

FIRRONSKAYA, A.V., kand. tekhn. nauk; PULIN, M.V., inzh.

Accelerated method of selecting ingredients for gypsum-cement-pozzuolanic binders. Stroi. mat. 11 no.5:32-33 My '65.
(MIRA 18:9)

VOIZHENSKIY, A.V., prof., doktor tekhn.nauk; FERRONSKAYA, A.V., kand.tekhn.nauk; MIKHAYLOVA, G.F., inzh.

Sulfate resistance of gypsum-cement-pozzuolan and gypsum-slag-cement binders of improved strength. Stroi. mat. 11 no.10:30-31 O '65. (MIRA 18:10)

BUKANOV, Mikhail Aleksandrovich; PED', L.I.; SOBAKIN, N.S.; FERSHTER, E.Yu.,

[Handbook for the station agent-on-duty] Spravochnik dezhurnogo po stantsii. Moskva, Transport, 1965. 339 p.
(MIRA 18:12)

FERRONSKIY, V. I.

15-57-4-5390D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4, p 184 (USSR)

AUTHOR: Ferronskiy, V. I.

TITLE: Application of Radioactivity Studies to the Determination of Density and Moisture Content of Soils (Primeneniye radioaktivnykh izlucheniy dlya opredeleniya plotnosti i vlazhnosti gruntov)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Mosk. inzh.-stroit. in-t (Moscow Structural Engineering Institute), Moscow, 1956.

ASSOCIATION: Mosk. inzh.-stroit. in-t (Moscow Structural Engineering Institute)

Card 1/1

FERRONSKIY, V. I., Engineer; DURANTE, V. A., Engineer; KOGAN, YE., Cand. Geol. Sci., Administration for Designing, Investigations and Testing for Hydrotechnical Projects, Ministry of Power Stations of the USSR; KUYBYSHEV, V. V., Institute of Civil Engineering, Moscow, and NOSAL, S. I., Cand. Tech. Sci., Research Institute for Foundations and Soils, Ministry of Construction of the USSR

"Field Investigations of Soil Densities and Moisture Contents," a paper submitted at the International Conference of the International Society of Soil Mechanics and Foundation Engineering, London, 12-24 Aug 57. [references three Soviet papers]

Ferronskiy, V.I.

10(4); 21(5); 24(8) PHASE I BOOK EXPLOITATION SOV/2457

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke. 2d, Moscow, 1957

Teplotekhnika i gidrodinamika; trudy konferentsii, tom. 4 (Heat Engineering and Hydrodynamics; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, Vol 4) Moscow, Gosenergoizdat, 1958. 88 p. Errata slip inserted. 2,500 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR, and USSR. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii.

Eds.: M. A. Styrikovich (Resp. Ed.), G. Ye. Kholodovskiy, and N. S. Fomichev; Ed. of Publ. House: L. M. Sinel'nikova; Tech. Ed.: N. I. Borunov.

PURPOSE: This collection of articles is intended for scientists and laboratory workers concerned with the use of radioactive and stable isotopes.

COVERAGE: This collection of papers deals with the application of radioactive and stable isotopes as measuring tools in various types of scientific investigation. No personalities are mentioned. References are given after some of the articles.

MASLOV, V.N.; FERONSKIY, V.I., red.; LARIONOV, G.Ye., tekhn. red.

[Method of limiting equilibrium in the design of slopes of earth structures for strength] Metod predel'nogo ravnovesiia v raschete otkosov zemlianykh sooruzhenii na prochnost'; tochnoe reshenie. Moskva, Gosenergoizdat, 1958. 30 p.
(MIRA 16:2)

(Soil mechanics)

MASLOV, Nikolay Nikolayevich; FERRONSKIY, V.I., red.; VORONIN, K.P., tekhn.red.

[Conditions of stability of saturated sands] Usloviia ustoichivosti vodonasyshchennykh peskov. Moskva, Gos.energ. izd-vo, 1959. 327 p. (MIRA 12:8)
(Sand) (Soil mechanics)

TSYTOVICH, N.A., prof.; VESELOV, V.A., dotsent, kand.tekhn.nauk; KUZ'MIN, P.G., dotsent, kand.tekhn.nauk; FERRONSKIY, V.I., kand.tekhn. nauk, assistent; PILYUGIN, A.I., kand.tekhn.nauk, assistent; LUGA, A.A., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; SOKOLOV, N.M., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; SAVINOV, O.A., doktor tekhn.nauk; KOSTERIN, E.V., kand.tekhn.nauk, assistent. Prinimali uchastiye: AKINSHIN, V.M.; MARTSENYUK, V.I., starshiy laborant. VASIL'YEV, B.D., prof., doktor tekhn.nauk, retsenzent; BEREZANTSEV, V.G., prof., doktor tekhn.nauk, retsenzent; LAGAR'KOV, N.I., inzh., nauchnyy red.; SMIRNOVA, A.P., red.izd-va; NAUMOVA, G.D., tekhn.red.

[Foundation engineering] Osnovaniia i fundamenty. Pod red. N.A. TSytovicha. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 452 p. (MIRA 13:5)

1. Chlen-korrespondent AN SSSR (for TSytovich). 2. Zaveduyushchiy laboratoriyey kafedry osnovaniy i fundamentov Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V.Kuybysheva (for Akinshin). 3. Zaveduyushchiy kafedroy osnovaniy i fundamentov Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta imeni akademika V.N.Obraztsova (for Berezantsev).
(Foundations) (Soil mechanics)

PERONSKIY, V. I.; ZAVELSKIY, F. S.

"Gamma method for observing of dynamics of moisture percolating in soils and considered evaluating of ground Water Resources." Presented at the Symposium on Methods of evaluating resources of Underground Water with Emphasis on Arid Zone Problems, Athens 11-20 Oct 1961

S/194/61/000/012/046/097
D256/D303

AUTHORS: Lazebnikov, M. G., Ferronskiy, V. I. and Selivanov, L. V.

TITLE: Measuring soil density by means of gamma-rays

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1961, 28, abstract 12V238 (Avtomob. dorogi, 1961, no. 3, 24-25)

TEXT: A field soil gamma-densitometer is described for rapid measurements of soil density. The system of the instrument is based upon passing the gamma-rays through a layer of soil placed between the source and the detector, the recorded intensity being dependent upon the soil density. The described instrument comprises an integrator with a 100 μA microammeter measuring the grid current of a triode tube, whose anode potential depends upon charging a capacitor by current from a gamma-ray counter-tube. It is possible with the described instrument to determine the soil density at depths down to 25 cm without destroying its structure. The accuracy

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Measuring soil density ...

of the instrument is approximately ± 0.03 g/cm^3. Two different constructions of the instrument are described: Fork-and feeler rod-shaped. The basic electronic diagrams and the systems of construction for both types of instruments are given. There are 3 figures.
[Abstractor's note: Complete translation.]

Card 2/2

FERRONSKIY, V. I.; ZAVEL'SKIY, F. S.; SELIVANOV, L. V.; POLYAKOV, V. A.; DUBINCHUK, V. T.; PANTELEYEV, A. I.

Using methods of nuclear physics for solving problems of engineering geology and hydrogeology. Vop. gidrogeol. i inzh. geol. no.20:3-17 '62. (MIRA 16:4)

(Nuclear physics)
(Engineering geology)
(Water, Underground)

KUZ'MIN, Petr Gavrilovich; FERRONSKIY, Vasiliy Ivanovich;
DALMATOV, B.I., prof., doktor tekhn. nauk, retsenzent;
BORODINA, N.N., red.; CHIZHEVSKIY, E.M., tekhn.red.

[Designing foundations for limiting states] Proektirovanie fundamentov po predel'nym sostoianiiam. n.p. Rosvuzizdat, 1963. 66 p. (MIRA 17:1)

1. Leningradskiy inzhenerno-stroitel'nyy institut (for Dalmatov).

FERSCHL, L.

"New design of stabilized selective protection," by L. Ferschl, E.u. M., 1953, No. 13, p. 285

SO: ELEKTROTECHNICKY OBZOR (Electrical Engineering Review, Czechoslovakia) Vol. 43, No. 3, March 1954

L 35301-66 EWP(t)/ETI IJP(c) JD/WB

ACC NR: AP6026829 SOURCE CODE: GE/0065/66/231/03-/0237/0247

AUTHOR: Ferse, Elke (Doctor)

ORG: Institute for Electrochemistry and Physical Chemistry, Technical University, Dresden (Institut fur Elektrochemie und Physikalische Chemie der Technischen Universitat)

TITLE: Contribution to the passivation behavior of zinc in saturated zinc sulfate solution

SOURCE: Zeitschrift fur physikalische Chemie, v. 231, no. 3-4, 1966, 237-247

TOPIC TAGS: zinc, zinc compound, sulfate, dehydration, hydration

ABSTRACT: Tests were performed to determine the changes taking place while a zinc sulfate surface layer transforms from the passive into the acitve state. The instrument used was the spiral contractometer described by Brenner, A., and Senderoff, S., in J. Res. Nat. Bur. Stand., V. 42, 1949, pp. 89 and 105. It was shown that the passivation layer becomes stabilized by electro-osmotic dehydration, and that water diffusion occurs simultaneously. Hydration is a subsequent process; water first diffuses onto the hydrated surface layer before water can enter the dehydrated layer. The work was done between June, 1961, and April, 1964 at the Institute for Electrochemistry and Physical Chemistry of the Technical University of Dresden. The author thanks his teacher, Professor, Doctor, Engineer Kurt Schwabe, Doctor of Natural Sciences, for encouraging him to undertake this work, for active support, and for worthwhile discussions. Orig. art. has: 5 figures, 15 formulas, and 1 table.

[JPRS: 36,464]

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Card 1/1

BARTOSHEVICH, Yu.K., inzh.; PERSHTAT, I.I., inzh.

Launch with a tunnel-like arrangment for the propeller.
Sudostroenie 26 no. 11:39-42 N '60. (MIRA 14:1)
(Launches)

FERSHTAT, I.I.

[The T-117 small-sized self-propelled floating unit for work with boomed timber] Malogabaritnyi samokhodnyi plavuchii agregat T-117 dlia raboty v zapaniakh. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tselliulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1964. 48 p. (MIRA 18:4)

OSIPOV, L.N.; FERSHT, I.Ya.; ROGOV, S.P.; GOL'DSHTEYN, D.L.

Hydrofining of a diesel fuel distillate by means of hydrogen in the presence of carbon monoxide and carbon dioxide impurities. Khim. i tekh. topl. i masel 6 no. 5:15-17 My '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Diesel fuels) (Hydrogen)

SOV/65-58-10-6/15

AUTHORS: Rogov, S. P; Rysakov, M. V. and Fersht, I. Ya.

TITLE: Regeneration of Hydrogenation Catalysts with Hydrogen (Regeneratsiya gidriruyushchikh katalizatorov vodorodom)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 10, pp 29 - 33 (USSR)

ABSTRACT: During the hydrogenation of crude petroleum, coke is deposited on the catalyst. Coke formation is most intensive during the first stage when the fresh catalyst is used; it then slows down and in some cases disappears almost completely. The curve in Fig.1 shows the rate of coke formation on the hydrogenation catalyst. Coke formation is slowed down when the partial pressure of hydrogen is lowered, or when the contact time of the raw material with the catalyst is decreased. Catalytic processes for the manufacture of motor oils from petroleum, in the presence of hydrogen, are generally carried out at temperatures of 375° to 500°C. Coke which is deposited on the catalyst is not completely pure carbon, but hydrocarbons which are hydrogenated somewhat easier than the pure carbon. Tests showed that the catalysts can be regenerated by using hydrogen. Oxide catalysts, prepared either from aluminium silicates or aluminium

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oxides, were tested. Coking of these catalysts occurred during the processing of heavy sulphur-distillate fractions at 450°C and at low partial hydrogen pressure, or in the absence of hydrogen. In some cases catalyst samples were tested which had been used during the processing of heavy raw materials at high hydrogen pressure. They were regenerated in a hydrogen current in a continuous high pressure plant at temperatures of 400 to 475°C, and at pressures of hydrogen up to 300 atms (Fig.2). The effect of the temperature on the rate of regeneration of the catalyst was also investigated. The temperature coefficient and activation energy at 450 to 475°C equalled E_{cal} - 17,500 and K_t - 1.18 . The partial pressure of hydrogen influences inversely the rate of coke hydrogenation (Table 1). It was also observed that the rate of hydrogenation of coke is inversely proportional to the mixture of hydrogen and hydrocarbon gases during the treatment of the coked catalyst (Table 2). It was found that a catalyst used during 1100-hour destructive hydrogenation of the 320 to 450°C petroleum fraction at 450°C, at a pressure of 300 atms, contained 5.5%

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coke. This is approximately the same quantity as the amount of coke on the catalyst which was processed with a mixture of hydrogen and vapours of the 320 to 450°C fraction. The rate of hydrogenation is also inversely porportional to the temperature. Coke deposited during a high pressure process is hydrogenated considerably easier than coke formed at the same temperature, but in the absence of hydrogen. The method was tested under laboratory conditions during the destructive hydrogenation of heavy gas-oil fractions and satisfactory results were obtained. There are 2 Tables, 3 Figures and 11 References: 10 English and 1 German.

ASSOCIATION: VNII NP

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20832. Fershtat, N. I. Pavysit' otvetstvennost' MTS za urozhay. Sots. sel. Khoz-vo. Uzbekistana, 1949, No. 1, s. 42-49.

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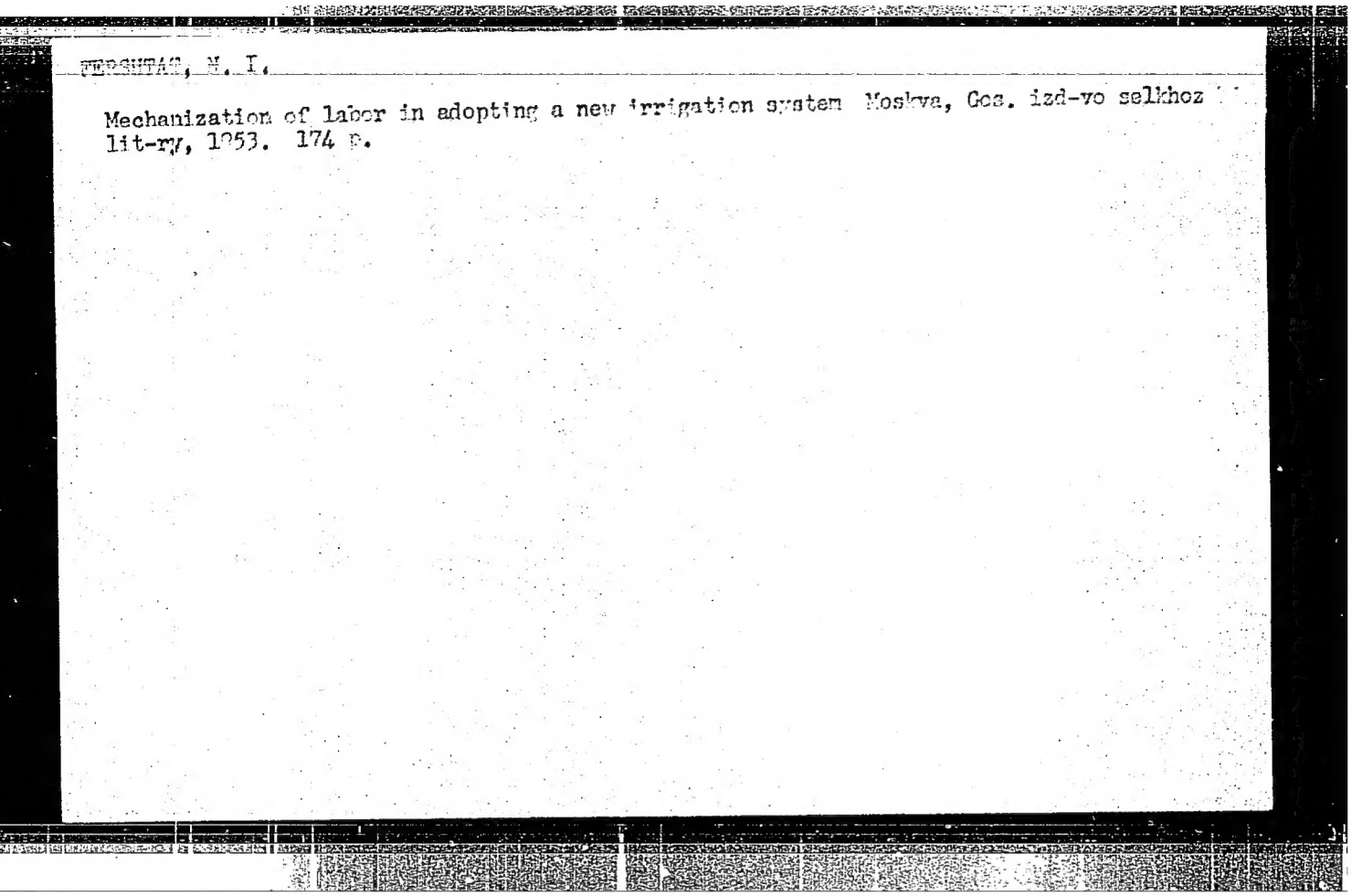

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